brownish. Wings hyaline, costal cell brown, stigma black, tip of the marginal, submarginal and first posterior cell clouded with dark brown. Halteres white. Length 5 mm.

The female closely resembles the male. The first segment of the ovipositor is red, the tip blackish. Length 6 mm.

Fourteen specimens, Los Banos, Merced Co., California, May 22, 1918, collected by Mr. E. P. Van Duzee. Holotype (No. 521), allotype (No. 522) and eight paratypes in the collection of the California Academy of Sciences. Four paratypes in the author's collection.

Similar to *U. rubida* Loew, but that species has a broader and smoother front, the scutellum and pleura are a brighter red and more polished, the abdomen is also more polished and the ovipositor entirely black, the wings are a whitish hyaline, the apical spot smaller, the inner edge straight, not sinuous, and the tip of the first posterior cell narrower.

## NEW MOSQUITOS FROM PANAMA.

By C. S. Ludlow,

Army Medical Museum, Washington, D. C.

During the later months of the summer, in connection with the work at Army stations both in this country and abroad, some new forms belonging to different groups of mosquitos have been received at the Army Medical Museum, two of which are from Panama and the others from the A. E. F.-S. taken at four different stations in Siberia.

There have also been received from Siberia three species already described by Mr. Theobald, "Culicida togoi," "Culicida nipponi," and "Culex osakaënsis." These are Mr. Theobald's namings but some of these species have since been referred to other genera, by Mr. Edwards.

Some of the new species are described as follows:

## Anopheles (Stethomyia?) niveopalpis sp. nov.

Female. Head: dark brown, practically black, covered with fine "tomentum," a frosty line around the eyes, a tuft of long slender white scales projecting forward between the eyes, white lanceolate and forked seales on the vertex, and black forked seales on the occiput; these, changing somewhat in shape extend well toward the sides of the head; brown bristles extending forward around the eyes; antennæ brown, basal joint brown, second joint with a few slender white seales, verticels brown, pubescence white; proboseis very dark brown, labellæ light brown; palpi dark covered with very dark brown or black scales, outstanding on the proximal third, the apical parts of the ultimate and penultimate joints broadly snowy white, only a narrow brown band or spot intervening, which may possibly very narrowly involve both sides of the joint, a few yellowish hairs at the apex; clypeus brown, nude; eyes black.

Thorax: prothoracic lobes well separated, manillated, with a few brown bristles; mesonotum grey and brown, the median portion of about one-third the width of the mesonotum is greyish, and this widens so as to include the "bare" space, a median dark brown line extending about half the length of the mesonotum and laterally the membrane is a soft brown. The small hairs are diffuse over the greyish portion, a line of larger hairs in the median dark line, and at the junction of this grey with the brown lateral portions, which latter is almost nude save for a few longer bristles on the lateral margin and over the wing joint. There are a few narrowly lanceolate white scales and a group of brown bristles at the nape; seutellum brown with scanty brown hairs and brown marginal bristles; postnotum brown, nude; pleura brown shading to the white of the coxe.

Abdomen brown covered only with brown hairs, and brown border bristles.

Legs brown; coxe very light, practically white, with a few brown bristles, femora light at the very base and on the ventral aspect, otherwise the scaling of all the legs is dark brown, with a minute yellowish knee-spot on the hind legs.

Wings clear, heavily clothed with dark brown rather broadly lanceolate scales, tending to give golden reflections; fringe dark except at the apices of both forks of the second long vein and the apex of the third where the color is a yellow such as is given by the reflections on other parts of the wings. First sub-marginal a little longer and narrower than the second posterior, its stem about half as long as the cell, and the stem of the second posterior nearly as

long as the cell; posterior cross-vein a little more than its length distant from mid-cross vein. Halteres with greyish stem and very dark knob.

Length about 3 mm. (body) proboseis 1.5 mm.

Taken July 28, Comacho Reservoir, Empire, Canal Zone, Panama.

Described from one specimen in good condition bred from larvæ taken at Comacho, and sent by Colonel H. S. Greenleaf, M. C., U. S. Army, Department Surgeon. A specimen which is probably the same was sent some time since, but was in such bad condition that, although it was believed to be a Stethomyia probably lying close to nimba, it was impossible to place. This I should also place as a Stethomyia, but hesitate to do so because the scales on the vertex are not true flat scales. However Theobald (Mono. Cul. Vol. IV, p. 59) divides Stethomyia into two groups and remarks "Group B has the cephalic scales not quite so flat as in A," and James and Liston in describing Stethomyia culiciformis speak of "a few white spindle-shaped scales in the middle line in front" (Mono, Ind. Anoph., p. 122, 1904), and it may be that the genus includes some in which these scales are not true flat scales. At all events it does not resemble nimba in the thoracic marking, and the palpal markings are very distinctive.

## Trichoprosopon (Joblotia) shropshirei sp. nov.

Female. Head light brown, covered with flat brown scales, lighter at the sides, and a row of dark brown forked scales at the nape; antennæ brown, verticels and pubescence brown, basal joint brown; proboscis long and slender, sometimes a little swollen near the apex, covered with dark brown scales having a bluish iridescence, a few dark bristles at the base, labellæ small, brown; palpi short, about one-tenth the length of the proboscis, dark brown; clypeus dark brown, with a row of minute dark brown hairs, on the anterior margin; eyes brown.

Thorax partly denuded, prothoracic lobes not contiguous, covered with large dark brown flat scales, somewhat elongated, and dark brown bristles, the latter mostly on the cephalic margin; mesonotum pale brown, and lighter laterad, sparsely covered with rather broad flat brown scales, except at the angles of the shoulders where the scales are a shiny yellowish white and merge into the very

broad flat shiny white scales of the pleura, which extend on the coxe. There is a row of brown bristles on the lateral margin of the mesonotum and over the wing joint; scutellum almost yellow, with brown flat scales and a group of bristles on each lobe; metanotum light brown with a well marked bunch of dark bristles (7–15) on the median line on the caudad portion.

Abdomen covered with rich brown scales having a bluish-green reflection, and large yellowish white brilliant scales forming basal spots, and connecting with the light scales of the venter. The first segment has small lateral white spots, and the last segment has numerous dark bristles. The venter is light, but the narrow apical dark scales extending from the dorsum give it the appearance of being banded.

Legs: femora and tibiæ are light scaled on the ventral aspect almost to the apex, more markedly so on the hind legs, otherwise the legs are all a rich dark brown with rather bright yellowish reflections which is sometimes misleading as to a given joint or part of joint. Unguos simple.

Wings clear, slightly darkened and heavily clothed with large broad truncate dark brown scales, some of which are slightly asymmetrical, the lateral scales longer and not so broad. The first sub-marginal cell is somewhat longer and narrower than the second posterior, its stem about half the length of the cell, and the stem of the second posterior about three-fourths its length, the bases of the cell nearly on a line; the posterior cross-vein about its length interior to the mid-cross vein. The costal margin is "spinous."

Length—body about 3.5 mm., proboscis 2.5 mm., wing 2.5. Taken July 23, at Camp Gaillard, Canal Zone, Panama.

Described from five females sent in the regular collections from the Panama Canal Department, and named for Mr. J. B. Shropshire, as a partial acknowledgment of his interest and care in collecting for the Museum.

The species is smaller than the others reported for this genus, and is very deceptive in appearance, for with these specimens was another, of practically the same general coloring which has curved scales on the head and thorax, no hairs on the clypeus, has rows of bristles on the mesonotum, and no hairs on the postnotum.